

## BIOGRAPHICAL SKETCH

Provide the following information for the Senior/key personnel and other significant contributors in the order listed on Form Page 2.  
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NAME Aras N. Mattis, MD, PhD	POSITION TITLE HS Clinical Instructor
eRA COMMONS USER NAME (credential, e.g., agency login)	

EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable.)

INSTITUTION AND LOCATION	DEGREE (if applicable)	MM/YY	FIELD OF STUDY
University of California, Berkeley	B.A.	05/98	Molecular and Cell Biology
University of Illinois, Chicago	M.D.	05/07	Medicine
University of Illinois, Urbana-Champaign	Ph.D.	06/07	Biochemistry
University of California, San Francisco		06/09	Resident, Anatomic Pathology
University of California, San Francisco		12/09	Fellow, Surgical Pathology
University of California, San Francisco		06/10	Fellow, Liver/GI Pathology
University of California, San Francisco		08/13	Clinical Research Fellow, Liver/GI Pathology
University of California, San Francisco		present	Postdoctoral Fellow
California Institute for Regenerative Medicine, University of California, San Francisco		08/13	Clinical Fellow

### A. Personal Statement

### B. Positions and Honors

#### Honors

- 1998 Biochemistry Trust Start-up Award, Department of Biochemistry, University of Illinois, Urbana-Champaign  
1998 Lycan Teaching Scholarship, University of Illinois, Urbana-Champaign  
2007 Alpha Omega Alpha Honor Medical Society, University of Illinois, Chicago

### C. Selected Peer-Reviewed Publications

- Lynch TW, Read EK, Mattis AN, Gardner JF, Rice PA. Integration host factor: putting a twist on protein-DNA recognition. *J Mol Biol.* 2003 Jul 11; 330(3):493-502.
- Dichiara JM, Mattis AN, Gardner JF. IntDOT interactions with core- and arm-type sites of the conjugative transposon CTnDOT. *J Bacteriol.* 2007 Apr; 189(7):2692-701.
- Mattis AN, Gumport RI, Gardner JF. Purification and characterization of bacteriophage P22 Xis protein. *J Bacteriol.* 2008 Sep; 190(17):5781-96.
- Baker-LePain JC, Stone DH, Mattis AN, Nakamura MC, Fye KH. Clinical diagnosis of segmental arterial mediolysis: differentiation from vasculitis and other mimics. *Arthritis Care Res (Hoboken).* 2010 Nov; 62(11):1655-60.
- Levy M, Trivedi A, Zhang J, Miles L, Mattis AN, Kim GE, Lassman C, Anders RA, Misdraji J, Yerian LM, Xu H, Dhall D, Wang HL. Expression of glypican-3 in undifferentiated embryonal sarcoma and mesenchymal hamartoma of the liver. *Hum Pathol.* 2012 May; 43(5):695-701.
- Zhu S, Rezvani M, Harbell J, Mattis AN, Wolfe AR, Benet LZ, Willenbring H, Ding S. Mouse liver repopulation with hepatocytes generated from human fibroblasts. *Nature.* 2014 Apr 3; 508(7494):93-7.

## D. Research Support

### On-going Research Support

- 1K08DK098270-01 09/01/2013-03/31/2018  
National Institutes of Health vRegulation of Lipid Metabolism by miR-29a within Hepatocytes  
Role: Principal Investigator
- P30 DK026743 Mattis (PI) 06/01/2013-05/31/2014  
UCSF Liver Center NIH Grant vMicroRNA and Gene Expression Profiling in Stage-Stratified NASH Patient Liver Biopsies  
UCSF Liver Center Pilot/Feasibility Award  
Role: Principal Investigator
- NOT-OD-09-107 Mattis (PI) 08/01/2013-06/01/2014  
National Institutes of Health Loan Repayment Program vIdentification of molecular mechanisms causing human fatty liver disease.  
Role: NIH Training Grant LRP

### Completed Research Support

- NOT-OD-09-107 Willenbring (PI) 10/01/2010-06/01/2012  
NIH Loan Repayment Program vIdentification of molecular mechanisms causing human fatty liver disease  
The goals/aims of this project are to 1) Identify patient cohort donors for iPS stem cell generation both with and without a familial variant of NASH, Generate human iPS cell lines from skin biopsy samples, differentiate human iPS cells into hepatocytes, establish in vitro bioreactor model, Repopulate Fah <sup>-/-</sup>, Rag2 <sup>-/-</sup>, IL2rg <sup>-/-</sup> mice with iPS-derived human hepatocytes.  
Role: Clinical Fellow - Trainee
- UCSF Department of Pathology, research Mattis (PI) 06/01/2008-06/01/2009  
Immunohistochemistry of Small Round Blue cell tumors.  
The goal of this project was to investigate Glypican-3 staining in pediatric small round blue cell tumors from the liver. This project has been published.  
Role: Principal Investigator
- UCSF Department of Pathology, research Mattis (PI) 04/01/2009-12/01/2009  
Immunohistochemistry of Pax2 and Pax8 on hepatocellular carcinomas versus renal cell carcinoma in tissue arrays.  
The goal of this project is to determine the sensitivity and specificity of Pax2 and Pax8 antibodies in HCC versus RCC tumor specimens  
Role: Principal Investigator
- UCSF Department of Pathology, research Mattis (PI) 08/01/2009-08/01/2010  
Classification of rare hepatic hemangiomas and variants.  
The goal of this project is to describe rare hepatic hemangioma and The The goal of this project is to describe rare hepatic hemangioma and variants histologically.  
Role: Principal Investigator
- TG2-01153 Willenbring (PI) 12/01/2010-08/31/2013  
California Institute for Regenerative Medicine vUsing iPS technology to recreate human fatty liver disease in mice  
Principal Investigator: Aras N. Mattis, M.D., Ph.D.  
Role: Clinical Fellow/Post-doctoral researcher  
Mentor: Dr. Holger Willenbring  
Director: Dr. Susan Fisher  
The goals/aims of this project are to 1) Reprogram patient-derived fibroblasts into induced pluripotent stem (iPS) cells, 2) Make iPS-derived human Hepatocytes in vitro and characterize for phenotypic classification, and 3) repopulate Fah <sup>-/-</sup>, Rag2 <sup>-/-</sup>, IL2rg <sup>-/-</sup> mouse model with patient specific iPS-derived human hepatocytes to fully model human fatty liver disease in mice. As the recipient of this fellowship award, I have primary

responsibility for design and execution of experiments, under the mentorship of Dr. Holger Willenbring.  
Role: Clinical Fellow - Trainee